Northern Alberta Development Council

The Development Of New Agricultural Land In Northwestern Alberta

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A Position Paper Presented to
Hearings of the Environment
Council of Alberta

November 22, 1983

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Alberta
NORTHERN ALBERTA
DEVELOPMENT COUNCIL

2nd Floor, Provincial Building, 9621 - 96 Avenue, Postal Bag 900-14, Peace River, Alberta, Canada T0H 2X0 403/624-6274

November 22, 1983

The Northern Alberta Development Council is pleased to present this position paper on the development of agricultural land in northwestern Alberta. The paper is the result of extensive deliberation by the Council based on a background research report completed during the summer of 1983. Field research involved a detailed survey of farmers and prospective farmers in northwestern Alberta plus a series of interviews with affected community and industry leaders.

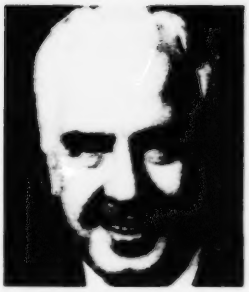
The Council appreciates the opportunity to submit its views to the members of the Environment Council of Alberta panel conducting public hearings on maintaining and expanding the agricultural land base. We feel this paper addresses the major issues concerning the development of agricultural land in northwestern Alberta and represents the views of the people of the north.

Norm A. Weiss, MLA
Chairman

THE NORTHERN ALBERTA DEVELOPMENT COUNCIL 1983/84

Norm Weiss, MLA
Chairman
Fort McMurray

Hon. Al "Boomer" Adair
Minister Responsible for
Northern Development
Peace River



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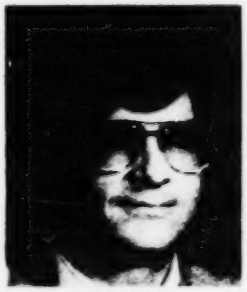

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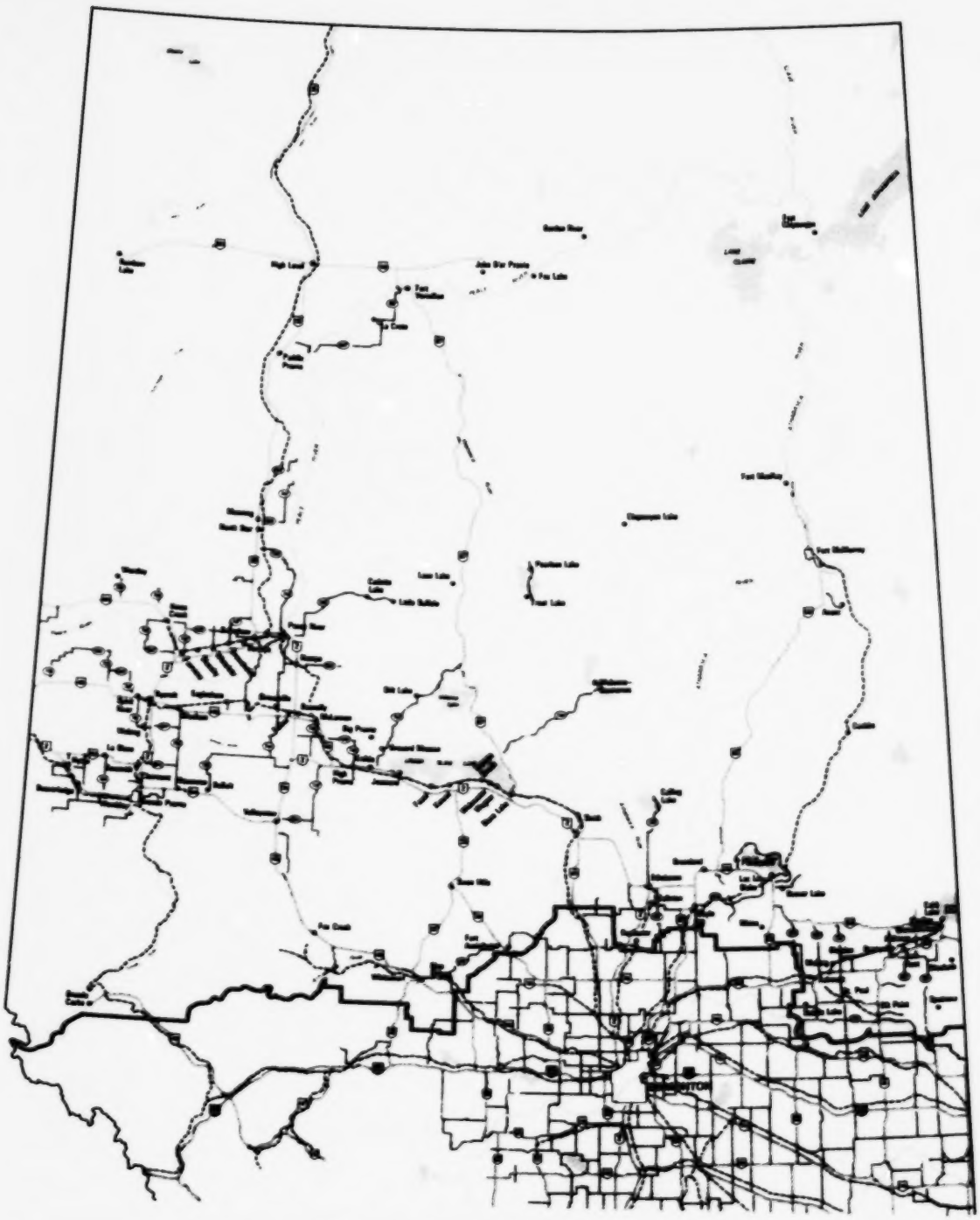


NORTHERN ALBERTA DEVELOPMENT COUNCIL AREA

INTRODUCTION

The Northern Alberta Development Council was created as an advisory body to the Minister Responsible for Northern Development to assist in the "investigation, planning, promotion and implementation of practical measures to foster and advance development in northern Alberta". It serves 230,000 citizens in approximately 60% of Alberta's land area. About 20% of the northern population is involved in farming and a large number of northern communities function primarily as farm service centres.

Since its re-organization in 1973, the Council has held nearly 60 public meetings across the north resulting in the receipt of over 1,000 briefs on various topics of interest. Of the some 50 briefs related to agriculture, a large portion expressed concerns or alluded to the difficulty of existing or potential farmers in obtaining new public land for agricultural purposes.

Because of the importance of agriculture to the region, the Council has long had an interest in the development of new agricultural land in the north. The 1975 NADC "Goals Statement" notes that the Council will strive:

"To encourage the development of a land use planning system for northern Alberta which would incorporate the following features:

- identification of critical areas which have unique characteristics worthy of preservation;
- resolution of land use conflicts;
- reaction to population growth in an orderly, planned way so that land and related facilities are available for people as they need them; and
- incorporation of appropriate public participation."

From Council's substantial investigative research into northern issues, a number of projects have related to agriculture and land development. A significant study, for instance, explored the phenomenon of part-time farming and its importance to northern agriculture.

In 1978 an NADC research report, "Agriculture in Northern Alberta", addressed many northern agricultural issues and, in particular, with relation to land development suggested the following:

"That a discussion on this issue take place which would include a review of the rationalizations and explanations of agricultural development in northern Alberta, particularly in the areas of the management of public lands and the present and future role agricultural development will play in the northern area, as well as the whole province; and

That, if northern agricultural expansion is a possibility, the use of large block developments around natural land characteristics be considered."

As a follow-up to the report, the Council sponsored a major conference on northern agriculture. Over 300 northern farmers and government officials, including the Premier, attended the Agriculture North Conference held at Peace River in November of 1978.

With regard to the topic, the following relevant conclusions were reached:

"Incentives should be created to encourage individuals to develop uncleared lands which have moderate to high agricultural potential.

"An overall review of land development and land use policies is needed in that:

- planning of agricultural land use should be more co-ordinated; and

– decisions should reflect a broad view of total community needs."

In mid-1982, the Northern Alberta Development Council decided to undertake a study to examine the topic of new agricultural land development in northwestern Alberta. The Council initiated the review in the belief that further land development would enhance Alberta's agricultural productivity and result in tremendous community and human development benefits.

The study was focussed on northwestern Alberta, as the Peace Block is well recognized as having the most substantial potential for development. A study advisory Steering Committee was struck with representation from the Northern Development Branch, Energy and Natural Resources, Alberta Agriculture and three farmers from the region. They developed terms of reference for the study and guided the work of the contracted research firm.

SUMMARY OF RESEARCH FINDINGS

The research project was conducted by Woods Gordon Ltd. and M. A. Anderson and Associates. It included an extensive survey of farmers in four selected areas (see accompanying map). The areas were chosen by the Steering Committee on the basis that they had evidenced high demand for land in the past and were near areas that may have potential for new land development.

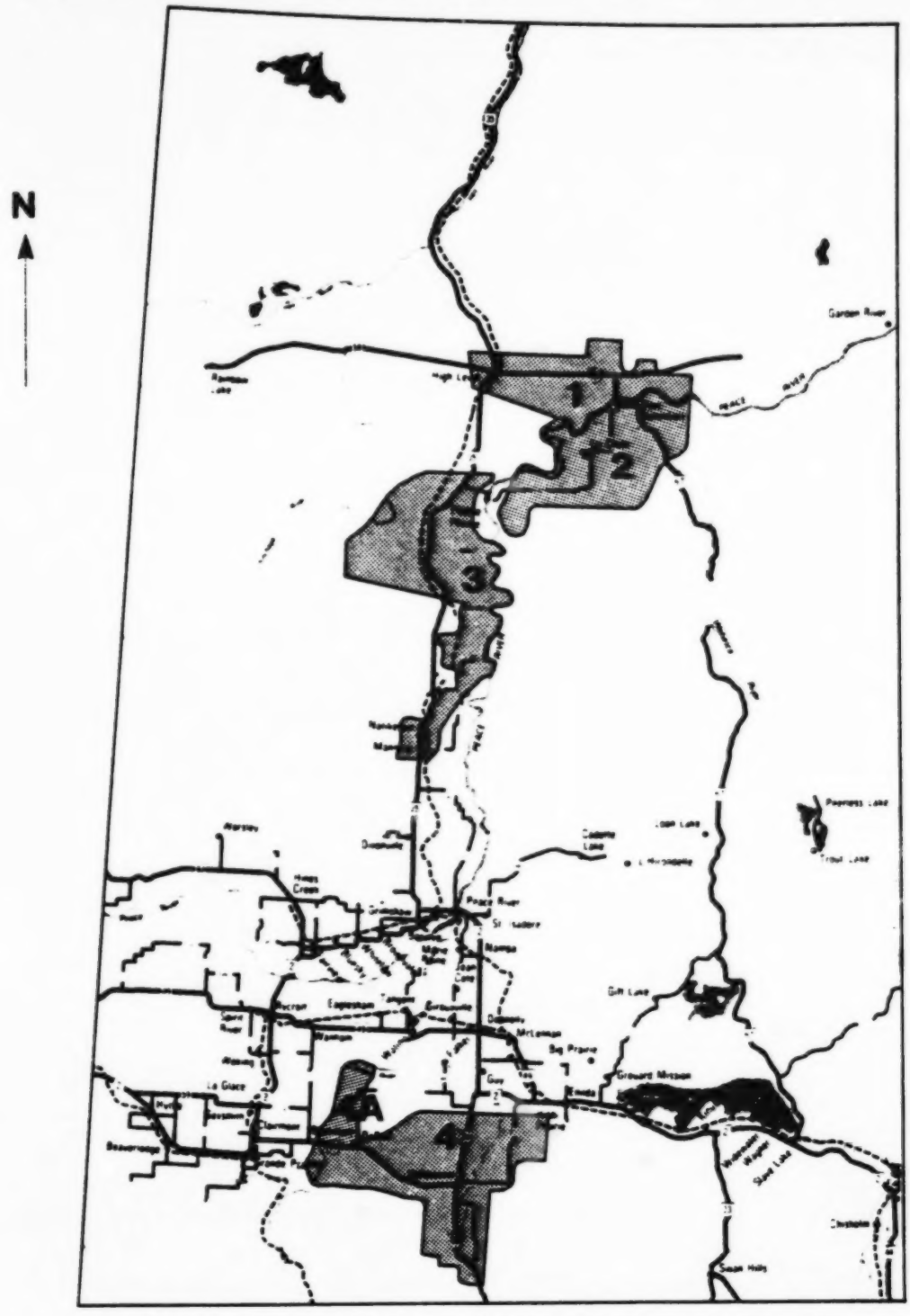
One thousand six hundred questionnaires were mailed to farmers within the areas and, significantly, 40% of the questionnaires were returned. In addition, 200 recent applicants for public land were surveyed and 150 on-farm interviews were carried out. The researchers also conducted interviews within the forest industry sector and with community leaders and government officials.

The collected information was used to assess the demand for Crown Land for agricultural purposes within the selected study areas. Cost benefit analyses were also formulated from the perspective of the farmer, the community and the province. The inter-relationship between agriculture and forestry, and the current mechanisms for land disposal were also examined.

Highlights of the research findings include:

- Nearly all of the farmers surveyed supported the idea of further agricultural land development.
- Approximately 80% of respondents plan to increase production through "the expansion of the cultivated area of their present farm" and the purchase of undeveloped Crown Land is seen as the primary way of doing it.
- The total demand for new agricultural land *within the selected study areas* is estimated at approximately 154,000 acres annually for the next 20 years.
- Sixty-two per cent of the demand for land was concentrated in the immediate (1983 - 1986) time period.
- Thirty-six per cent of the total demand came from farmers wishing to expand their existing holdings.
- Fifty-two per cent of the total demand came from members of an existing farmer's family (e.g. sons wishing to begin farming on their own).
- Twelve per cent of the total demand came from Crown Land applicants not presently farming in the region.
- The highest demand from farmers was in the Valleyview area, followed by Fort Vermilion/La Crete, High level and then Manning.
- Generally the farmers in High Level and Fort Vermilion/La Crete areas are younger than their Manning and Valleyview counterparts.
- Overall the average number of years of experience in farming was 14 years. In the Manning area farmers had an average of over 16 years.
- Farmers in the High Level area generally had the largest farms, about 1,218 acres. On average, 773 acres were cultivated.
- Farms in Fort Vermilion/La Crete area were smallest, 768 acres, of which 544 acres were for cultivation.
- Farmers in the Manning area had the highest average amount of cultivated land, 823 acres of a total 1,137 acres (leased and owned).
- Only a few farmers in the study areas depend entirely upon income from their farming operations. Off-farm employment is vital to agricultural development in the area.

FARMER DEMAND SURVEY — STUDY AREAS



Western Section of Northern Alberta Development Council Area

- Income characteristics showed significant differences among the four areas. In Valleyview, 35% of farmers received over half of their income from farming. This compares to 48% in Manning, 53% in High Level, and 57% in Fort Vermilion/La Crete.
- Commercial scale farms in the northwest are generally not unlike their southern counterparts. It may be slightly riskier to farm in the northwest because of the climate variability. However, the farmers' cost of production data does not show that it is any more or less economic to farm in the northwest than elsewhere in the province.
- Eighty-five per cent of the surveyed farmers received some income from grain production. The next important source of farm income was from livestock production with approximately 40% of all farmers deriving at least some income from it. Valleyview farmers diverged from the rest of the areas in that they have much less dependency on grain and a correspondingly higher percentage of farm income comes from livestock production.
- Overall demand was for grain land, accounting for 63%. Forage accounted for 11%, and improved grazing 26%. However, in the three northern study areas, demand for grain land was significantly higher, averaging 85 - 89%. In the Valleyview area there was a heavy demand for improved grazing; nearly 90% of all grazing land requested was from this area.
- Farmers reported low levels of satisfaction with the land disposal process. The process was seen as too time consuming and the price of Crown Land was felt to be too high.
- Based upon costs of production reported by farmers and data collected from communities, a series of cost-benefit analyses were prepared. The researchers assumed the development of a minimum of 154,000 acres annually for 20 years at a 5% discount rate. The farmer cost-benefit ratio after 10 years was estimated at 0.51. After 20 years, the ratio reached a break-even point of 1.00 and increased to 1.81 after 50 years. Estimates for the communities in the region showed a high beneficial ratio. In year one, this ratio was estimated at 4.47, 2.20 in year 10, and 1.63 after 50 years. These high ratios can be attributed in part to the fact that little additional community infrastructure would be required to accommodate further expansion.
- Because grain production is export-oriented (80 - 90%), the impact on the provincial economy of additional land expansion will not be high. It is estimated that for every dollar of increased grain output there is a potential for $1.42 spin-off expansion in the output of the province. This compares to $1.92 in spin-off for forest production.
- Seventy-seven per cent of the farmers surveyed indicated that the forest industry was important to their region's economy.
- About 10% of farmers reported that they rely directly upon the forestry sector for part of their income. Forestry industry representatives reported that approximately 30% of their work force were farmers. Off-farm employment was generally higher in Fort Vermilion/LaCrete and the High Level area.
- Farmers also reported that forest cover was important to them for on-farm lumber supply and for recreational and environmental reasons.
- The loss of timber producing land could result in a loss of forestry investment in northwestern Alberta. The forestry industry is characterized by the requirement for large capital investment. These investments are directly dependent upon annual allowable cuts.
- As the northwestern agricultural area expands, there is a need to ensure that this occurs in an orderly fashion. Orderly, well-defined development would allow the forest industry to accommodate agricultural expansion. A secure land base for forestry is particularly important because of the approximate 90-year time frame required for tree growth.
- There are a series of environmental issues that are important. In particular, the soils in the area are primarily lacustrine on large slopes and once the tree cover is removed the soil may be prone to erosion. An adequate drainage system will require careful consideration and planning and co-operative efforts by farmers and government.

- Increased agricultural expansion will shrink wildlife habitat areas. Also the primary ungulates in the Peace Region are moose and elk which tend not to be compatible with agriculture development.
- New agricultural land expansion will be a cost to the Provincial Government. The major capital costs will be for 1) roadways (both trunk and feeder), and 2) drainage. Additional costs will be incurred for maintenance of new infrastructure as well as modest additional increases in government staff for increased planning, enforcement and extension.
- A theoretical analysis of new land development in the northwest indicates that the total net capital cost to government will be approximately $130 per acre.
- The net benefit to government and to the economy of the area is difficult to calculate in terms of jobs created through land clearing, additional supplies and services, etc., and in terms of increased revenue generated from income taxes, and the like. However, the human development benefits are undeniable.

ISSUES AND RECOMMENDATIONS

Agricultural Capability

The Yellow and Green Areas in Alberta were established in 1948 by Order-in-Council to control settlement and promote land management. The Yellow Area in northwestern Alberta was seen as an area in transition towards settlement, while the Green Area was essentially withdrawn from settlement and agricultural development (with the exception of Grazing Reserves). Generally the boundaries of the Yellow and Green Areas have remained fairly stable. Small amounts of land have been withdrawn or added to the settlement area as inventories and land use decisions have been completed. Statistics show that overall, the Green Area has, in fact, experienced a modest increase in size since 1975.

The Yellow Area in northwestern Alberta contains about 10.6 million acres of land. There are about 2.7 million acres of Canada Land Inventory (CLI) Class 2 - 3 land. About 5.2 million are Class 4, sub-totalling 7.9 million acres. Estimates are that between 1.7 million and 3.5 million acres of Class 2 - 4 lands (private and public) remain undeveloped in the Yellow Area.

This estimate of undeveloped land left in the Yellow Area cannot, however, be directly equated with potential agricultural land because it does not take into account the number of acres withdrawn from agricultural use for forestry or wildlife habitat. Also some of the land is inaccessible, located in small dispersed units, or otherwise not feasible for development. The remaining undeveloped Class 2 - 4 land within the Yellow Area may, therefore, be able to sustain only limited expansion.

In recent years much has been said about the potential for agriculture within the Green Area. Pressure for further agricultural development has been exerted primarily by farmers living near the forested areas. Many believe that land adjacent to their existing farmsteads will sustain agricultural production because of its similarities to their present holdings. The Green Area is also viewed locally as the only area where the next generation of farmers can begin.

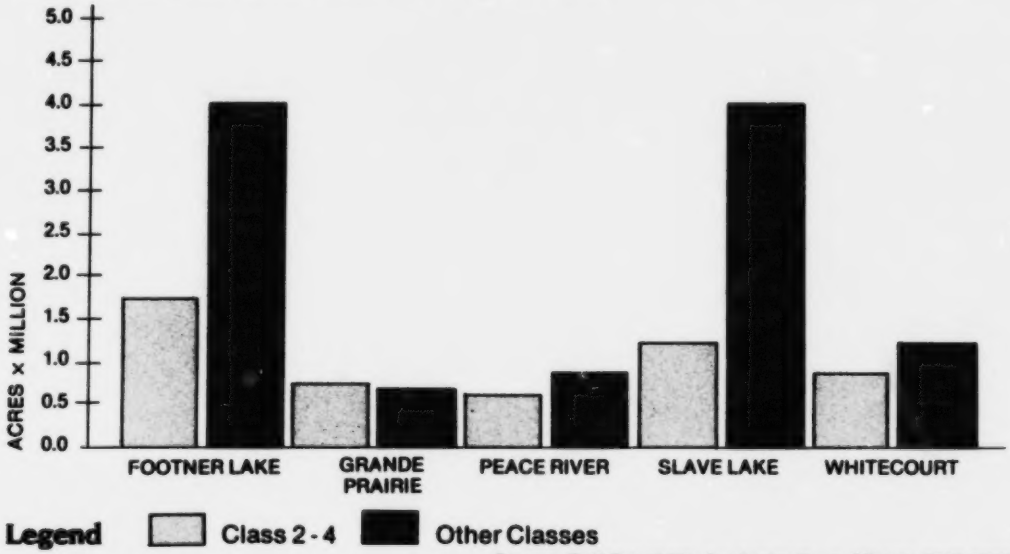
Canada Land inventory data suggest that there may be some nearly 9 million acres of potential agricultural land within the Green Area of the Peace Region, as outlined on the accompanying maps.

Legend
Green Area
Yellow Area
Class 2 and 3 Lands
Class 4 Land

As noted, the Green Area of northwestern Alberta has significant concentrations of Class 2 - 4 lands. They represent only a small portion of the total forested area, but the absolute size is impressive. The total of all Class 2 - 4 land in northwestern forests is roughly equal to the area of improvement District 16.

CLI data for selected forest management units (FMU) within the Footner Lake, Peace River, Grande Prairie, Slave Lake and Whitecourt forest areas of the region are expressed in the following graph.

SELECTED FMU WITH LARGE AMOUNTS OF CLI 2 - 4 SOILS



Source: Soil Capability for Agriculture, Alberta ENR 1983

Despite the size of this potential resource, there is very little that is known about the true agricultural capability of these lands. CLI data do not measure agriculture productivity; rather, they measure the degree of limitations that exist for agriculture. They provide only a broad provincial or regional perspective rather than a site-specific inventory of agricultural capability. Only some very preliminary analysis of CLI data has been carried out. This initial work suggests that the size of the potential agricultural resource in the Green Zone may be significantly smaller, perhaps only 5.5 million acres. Nonetheless, this still represents a significant resource.

A key issue of further agricultural land development in the northwest is the impact upon the forest industry. It is important that a stable land base for forestry operations is established and maintained. The forest industry, to some extent, competes with agriculture for its land base. At the same time, farmers depend upon forestry for employment and lumber supplies.

Forestry is a valuable part of the economy of northwestern Alberta. It is estimated that over 20 million acres of productive forest exist in the Grande Prairie, Slave Lake, Peace River and Footner Lake forests. A further 13.7 million acres of potentially productive forest are also available. Calculations based on annual allowable cut statistics and average acre productivity would indicate that 28.3% of the productive forest in northwestern Alberta is currently allocated to the forest industry. Northern forests contain a mixture of both coniferous and deciduous trees. The utilization rate for coniferous is considerably higher than for deciduous. It is estimated that 66% of the coniferous stock in northwestern Alberta has been allocated or committed for industry use. Significant investment has been made in mills and processing facilities in the northwest region, particularly at Grande Prairie and High Level and in the Lesser Slave Lake area. A number of small operators also hold timber quotas throughout the region.

Clearly some of the potential agricultural expansion areas are of significance to forestry production. The impact of expanding agricultural development into existing forest areas must be accom-

modated, to a degree, by the replacement of lands lost to forestry operators, both large and small, with other allocations. A concern of the forestry sector is that replacement timber agreements and future timber areas may be of lower productivity and further from existing mill operations.

In the opinion of the Northern Alberta Development Council, maintenance of a viable forest industry in northern Alberta is extremely important. It will undoubtedly require a resource planning strategy that includes a co-ordinated inventorying process and co-operation among all sectors.

RECOMMENDATION 1

The Northern Alberta Development Council recommends that work begin immediately on a detailed inventory of the remaining undeveloped CLI Class 2 - 4 soils in the Green and Yellow Zone of Northern Alberta in order to determine their capability to support expanded agricultural production.

RECOMMENDATION 2

The Northern Alberta Development Council recommends that, wherever possible, the development of public lands for agricultural purposes proceed in a manner that will not be detrimental to existing forest operations.

Farmer Demand for New Agricultural Land

A major issue concerning the development of new agricultural land in northwestern Alberta is the demand from the existing farming community for additional public lands. Our research confirms that, at least from within our four study areas, the demand is substantial. Over 75% of the farmers surveyed indicated they wanted more land to expand the size of their present farming operations.

These farmers indicated they were prepared to travel an average of 10 miles from their present operation. They indicated they primarily required land for till cropping. Only in the Valleyview area was there substantial demand for improved grazing land.

A second major force in the demand for land comes from other family members of existing farmers. Presumably, the development of larger blocks of land further from existing farmsteads can meet this substantial requirement.

The Northern Alberta Development Council fully recognizes that this "surveyed demand" of at least 154,000 acres per annum in selected parts of the region is not necessarily "effective demand". There are many factors which could increase or decrease the effective demand for land at any given time. Higher levels of demand within the area could be infludenced by people outside the region wishing to relocate there. Demand for "cheap public land" may increase if private land prices escalate. Demand will be affected as the general economics of agriculture improve. Factors that could decrease demand include the price of posted land, its location and quality. We believe, however, that the 154,000 acres per annum for 20 years (approximately 3 million acres) identified in the survey do reflect a reasonable estimate of the effective demand within a major part of the study area.

Alberta Energy and Natural Resources has a publicly-stated goal to dispose of 250,000 acres of public land annually in the entire northwest region over the next 5 years (approximately 1½ million acres). To reach part of this goal, Energy and Natural Resources has undertaken Integrated Management Plans (IMPs) in three areas in northwestern Alberta. IMPs are at various stages of completion in the Frost Hills area south from High Prairie to Kinuso, Sturgeon Lake/Puskwaskau northwest of Valleyview and Jean D'Or Prairie east of Fort Vermilion. These plans could meet a portion of the demand for additional Crown Land by the creation of new "blocks" for development. At the same time, "fringe" development is continuing on the periphery of established farming areas. Overall posting of public land by the Department has varied over the past five years. In 1978, nearly 174,000 acres were posted; in 1982, this figure dropped to 68,500 acres.

RECOMMENDATION 3

The Northern Alberta Development Council recognizes and supports the goal set by Alberta Energy and Natural Resources to make available 250,000 acres of public land annually in the northwest for the next five years, and recommends that effective implementation take place.

RECOMMENDATION 4

The Northern Alberta Development Council recommends that "fringe" development continue in all existing northern agricultural areas, where feasible.

RECOMMENDATION 5

The Northern Alberta Development Council recommends the early development of agricultural areas within the Frost Hills, Sturgeon Lake/Puskwaskau East and Jean D'Or Prairie Integrated Management Planning Areas.

RECOMMENDATION 6

The Northern Alberta Development Council recommends that, subject to soils analysis, planning should begin immediately for "block" development in the following areas:

- Southwest of Valleyview,
- South and southwest of High Level,
- Southwest of Buffalo Head Prairie,
- East of Hawk Hills (south of Paddle Prairie Metis Settlement), and
- East of Manning (across the Peace River).

RECOMMENDATION 7

The Northern Alberta Development Council recommends that, to the extent possible, dispositions of public land for grain, forage and grazing reflect farmer needs.

Planning for Agricultural Expansion

When agricultural expansion is considered for areas currently within the Green Area, the Department of Energy and Natural Resources begins by preparing an extensive resource management plan. As noted, this planning process results in Integrated Management Plans. A team is assembled that usually includes representatives of Alberta Agriculture, Alberta Environment, and the Forestry, Fish and Wildlife, and Public Lands Divisions of Energy and Natural Resources. In addition, a wide range of government agencies and groups are consulted at various stages in the planning process. Other consultative groups would include the local municipal government and planning authorities, as well as groups representing various interests, such as the forestry industry, the petroleum industry, agricultural representatives, fish and game associations, etc.

The overall purpose of Integrated Management Plans is to collect information, select from various resource management alternatives and outline eventual implementation steps.

The Northern Alberta Development Council is concerned about the length of time taken to complete these plans. The Jean D'Or Prairie plan, for example, was begun in 1981 and has only reached the draft plan stage. Further government, industry and public reaction to the plan will now be sought before the plan is finalized and any agricultural land posted for disposition.

RECOMMENDATION 8

The Northern Alberta Development Council recommends that the time frames for completion of Integrated Management Plans be shortened.

The Land Disposal Process

The existing public land disposal system of Alberta Energy and Natural Resources is under substantial pressure. There is a high demand for posted land—up to 15 applications are received for some parcels. Overall posting of public land, as noted, appears to have declined in recent years, or, at least, been extremely variable. Any decline in the amount of land posted undoubtedly intensifies the demand.

In general, the Northern Alberta Development Council has found that the present process for posting and disposing of public land is not well received in northwestern Alberta. In the farmer survey and interviews, two themes were consistently reiterated. Farmers were dissatisfied with the length of time required to acquire Crown Land, and they believed that there was a lack of consistency in the approach regarding the appeal procedure. With regard to the posting and disposal system, over 35% of the farmers surveyed expressed great dissatisfaction. In some 200 written comments on the land disposal process, farmers pointed out a particular problem with the time

delays between posting and awarding. Farmers considered these delays to be unnecessary and often attributed the delays to the "inefficiencies of the government system".

Local Agricultural Development Committees play a useful role in the process by hearing appeals from farmers turned down in the selection process. However, some farmers felt that the approach was inconsistent from area to area. It was frequently suggested there should be standard provincial guidelines and more regular turnover in Committee membership.

A second major issue raised by farmers concerned the cost of Crown Land. Many farmers concluded that there was very little difference between the purchase price of Crown Land and the price of developed land, once the cost of clearing was taken into consideration. The average purchase price of Crown Land in the area ranges from $60 - $100 per acre; to these costs must be added a land clearing cost of approximately $200 per acre. This raises the price of 160 acres to the $42,000 to $48,000 range, similar to the price of already developed land.

Some farmers indicated that it takes, on average, two to four years to get land into production. In the estimation of the respondents, this time lag resulting in lost revenue should lead to a reduction in the initial price set for Crown Land. At the same time, 77% of the farmers indicated that the high cost of acquiring developed land was an important factor in their decision to attempt to secure Crown Land. The research carried out by the Council cannot reconcile these apparently opposing viewpoints held by farmers, but it is nonetheless a significant issue.

RECOMMENDATION 9

The Northern Alberta Development Council recommends that the Associate Minister of Public Lands develop new policies and procedures with a view towards shortening the time required to post and dispose of Crown Land.

RECOMMENDATION 10

The Northern Alberta Development Council further recommends that, within the land disposal system, formal terms of reference and appeal criteria be developed for local Agriculture Development Committees.

RECOMMENDATION 11

The Northern Alberta Development Council recommends that the Associate Minister of Public Lands consider adjusting the cost of posted public lands to reflect market values in light of the time required to bring the undeveloped land into full production.

CONCLUSION

After detailed review, the Northern Alberta Development Council concludes that expansion of the agricultural land base will greatly assist in the further development of Northern Alberta. Expansion of the agricultural land base will be of direct benefit to farmers wishing to enhance production and will allow the introduction of the next generation in the region to farming. It will be of substantial benefit, in particular, to communities near agricultural expansion.

There are, of course, a set of costs associated with new agricultural land development in northwestern Alberta. There may be some cost to the forest industry through the reduction of the overall forest resource, but we feel this can be kept to a minimum. There are some disadvantages to be incurred by decreasing wildlife habitat. There will be net costs over the short-term to the provincial government, primarily for the development of roads and drainage systems, but these will not be entirely new budgetary costs as evidenced by the existing provincial accelerated land expansion program since the mid-1970s.

Sound resource management planning will assist in reducing the costs and enhancing the benefits. Further expansion of the agricultural land base in northern Alberta will continue to require a good working relationship among government, the agriculture sector, forestry operators and all other affected interests. The Northern Alberta Development Council hopes this paper will be some assistance in this continuing endeavor.

POOR

QUALITY

ORIGINAL